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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

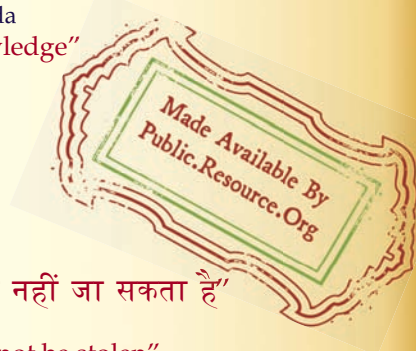
IS 10090 (1982): Specification for numerals [CED 15: Builder Hardware]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

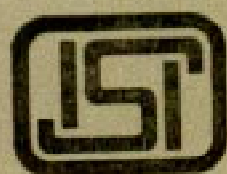
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Indian Standard
SPECIFICATION FOR NUMERICALS

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR NUMERICALS

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Indian Standard

SPECIFICATION FOR NUMERICALS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 29 January 1982, after the draft finalized by the Builder's Hardware Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Numericals or figures made out of brass, bronze or aluminium are being extensively used in hotels, office complexes, hospitals and other public buildings for marking rooms, blocks, etc. This standard has been prepared with a view to laying down the essential requirements for the manufacture of such numericals.

0.3 While issuing this standard, the Sectional Committee took note of the acute scarcity of materials like brass and bronze in the country and the need for conserving the use of the same in national interest. However, in view of the demand for numericals made out of these materials in the overseas markets, they have been included specifically to meet the requirements of export trade. For all indigenous uses, it is recommended that numericals made out of these materials should not be used.

0.4 This standard contains clauses **3.1**, **4.1.2** and **5.1** which permit the purchaser to use his option for selection to suit his requirements.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified values in this standard.

1. SCOPE

1.1 This standard specifies the requirements regarding materials, dimensions, manufacture and finish of numericals.

*Rules for rounding off numerical values (revised).

2. MATERIALS

2.1 The materials used for the manufacture of numerals shall comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR MATERIALS FOR NUMERALS

(Clause 2.1)

| Sl No. (1) | MATERIALS (2) | SUITABLE GRADE IN INDIAN STANDARDS (3) |
|---------------|------------------|--|
| i) | Cast Brass | Grade 3 of IS : 292-1961* |
| ii) | Cast Bronze | Grade 3 of IS : 305-1961† or Grade 4 of IS : 306-1968‡ or Grade 3 of IS : 28-1975§ |
| iii) | Cast Aluminium | Designation 5230 or 4600 of IS : 617-1975 |

*Specification for brass ingots and castings (*revised*).

†Specification for aluminium bronze ingots and castings (*revised*).

‡Specification for tin bronze ingots and castings (*second revision*).

§Specification for phosphor bronze ingots and castings (*third revision*).

||Specification for aluminium and aluminium alloy ingots and castings for general engineering purposes (*second revision*).

3. DESIGN AND SHAPE

3.1 The design and shape of numerals shall be as agreed upon between the manufacturer and the purchaser.

4. SIZE AND DIMENSIONS

4.1 The numerals shall be of 25, 50, 75, 100, 150 and 300 mm size.

4.1.1 The size shall be designated by the overall height of the numerals.

4.1.2 The thickness of the numerals shall not be less than 2 mm, and the width shall be as agreed upon between the purchaser and the manufacturer.

5. MANUFACTURE

5.1 The numerals shall be made of brass, bronze or aluminium as required by the purchaser. They shall be manufactured in one piece and shall be free from all defects. Provision of projecting lugs or pins at the back of the numerals shall be made for fixing. Alternatively, a minimum of two numbers of clean and countersunk screw holes shall be provided to suit countersunk wood screws No. 4 (*see* IS : 6760-1972*). All sharp edges and corners shall be removed. Special lugs to enable the numerals to project from the walls or doors shall be made if required by the purchaser.

*Specification for slotted countersunk head wood screws.

6. FINISH

6.1 Brass and bronze numerals shall be finished smooth, and shall have bright or satin finish, or they shall be plated. They shall be suitably protected from discoloration. Aluminium numerals shall be anodized and the quality of anodized finish shall not be less than Grade AC 10 of IS : 1868-1968*.

7. MARKING

7.1 Each numeral shall be legibly and indelibly marked with the name of the manufacturer or his trade mark, if any.

7.1.1 The numerals may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

8. PACKING

8.1 Numerals shall be individually wrapped with polythene paper or tissue paper and shall be packed in multiples in cardboard boxes.

8.2 Each package shall bear the following information:

- a) Size,
- b) Quantity, and
- c) Name of the manufacturer or his trade mark, if any.

9. SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

9.1 Lot — In any consignment all the numerals of the same shape, design, size and manufactured from the same material at the same time shall be grouped together to constitute a lot.

9.2 Sample Size — The number of numerals to be selected from a lot shall depend on the size of the lot and shall be in accordance with col 1 and 2 of Table 2.

*Specification for anodic coatings on aluminium (*first revision*).

9.2.1 These numericals shall be selected at random from at least 10 per cent of the packages subject to a minimum of three, equal number of numericals being selected from each such package.

TABLE 2 SCALE OF SAMPLING AND CRITERION FOR CONFORMITY

(Clauses 9.2 and 9.4)

| LOT SIZE (1) | SAMPLE SIZE (2) | PERMISSIBLE NUMBER OF DEFECTIVES (3) |
|-----------------|--------------------|---|
| Up to 150 | 5 | 0 |
| 151 to 300 | 20 | 1 |
| 301 to 500 | 32 | 2 |
| 501 to 1000 | 50 | 3 |
| 1001 and above | 80 | 5 |

9.3 Tests

9.3.1 All the numericals selected as in **9.2** shall be checked for dimensional requirements (*see 4*), defects in manufacture (*see 5*) and finish (*see 6*). Any numerical which fails to satisfy any one or more of these requirements shall be considered as a defective numerical.

9.4 Criterion for Conformity

9.4.1 A lot shall be considered as conforming to the requirements of this standard, if the number of defective numericals among those tested does not exceed the corresponding number given in Col 3 of Table 2.